Principal Particulars

Designer/Builder	-	Incat, Hobart, Australia
Class Society	-	Det Norske Veritas
Certification	-	DNV +1A1 R1 HSLC Cargo EO (with RO declaration)
Length overall	-	97.22m (318' 11")
Length waterline	-	92.00m (301'9")
Beam overall	-	26.60m (87'3")
Beam of Hulls	-	4.50m (14' 8")
Draft	-	3.43m (11'3") loaded
Speed	-	approx 38.0 knots @ 700 tonnes deadweight
	-	approx 42.0 knots @ 350 tonnes deadweight

*Note - All speeds quoted for smooth sea-state, excluding T-foil and 100% MCR (4 x 7080 kW)

Capacities

Deadweight	-	approx 700 tonnes (770 tons)
Total persons	-	325 maximum
Crew Accommodation	-	40 personnel maximum in cabins plus HSC certified seating for 285 persons
VD Axle Loads	-	Transom to Frame 49 - maximum 10 tonnes per single axle (M1A2 compatible).
	-	Forward of Frame 49 Ramp A to D - 0.8 tonnes per axle.
Fuel (operating)	-	190,080 litres (50210 gals)
Fuel (long range)	-	2 x 210,238 litres (2 x 55540 gals)
Fresh Water	-	2 x 5000 litre (1320 gals) GRP tanks plus 2 x 12,000 litres/day (3170 gals/day) water maker.
Sewage	-	2 x 4500 litre (1188 gals) GRP tank
Lube Oil	-	2 x 1500 litres (396 gals)
Oily Water/Waste Oil	-	2 x 1500 litres (396 gals)

Construction

Design	-	Two slender, aluminium hulls connected by a bridging section with centre bow structure at fwd end.
Subdivision	-	Each hull is divided into nine vented, watertight compartments divided by transverse bulkheads. Two compartments in each hull prepared as short-range fuel tanks and one as a long range fuel tank with additional strengthening on each of the end bulkheads.
Fabrication	-	Welded and glued construction, using aluminium plate grade of 5383 H116 or 5518 H116 and extrusion grade 6082 T6 or 5083 H112. Longitudinal stiffeners supported by transverse web frames and bulkheads.

Life Saving and Evacuation

Public Address	-	Builder's standard, marine, public address system supplied and fitted to cover all passenger and crew areas, vehicle decks, stairwells and ante rooms. Colour televisions fitted throughout the passenger seating areas to enable seated view of safety message televisions are configured to receive video, safety messages and input from the electronic chart system.
Internal Telephone	-	Call points in TCR Space, Planning Room, Crew Mess, Galley, Bar, Ships Office, each MES station, Medical Room, CO's cabin and bridge.
Alarm	-	Two tone general alarm (seven short and one long) signal generator activated from wheelhouse.
Escape	-	Escape via two Marine Evacuation Stations each serving 200 persons. A total of five 100-person liferafts fitted with A-packs.

Rescue	-	2 x SOLAS RHIB dinghy with 30 hp motor and approved launch / recovery method.

Fire Safety

Fire Detection	-	An addressable fire detection system covers at minimum all high and moderate risk spaces (other than the wheelhouse) with alarm panel situated in the wheelhouse with CCTV cameras.
Fire Protection	-	Lightweight structural fire protection protects all moderate and high risk spaces.
ER Fire Control	-	CO2 system for each engine room together with second shot cross connection.
Drenchers	-	Vehicle deck is protected by a zoned drencher system capable of operating two zones simultaneously. Pump control is from the wheelhouse and anterooms.
	-	Pax / crew area is protected by a zoned, dry, closed bulb drencher system interconnected with control valves to a single vehicle deck drencher pump.
Hydrants	-	Two electric motor driven pumps, one in Void 2 port and stbd, feed into a common loop which feed fire hydrants distributed throughout the ship.
Firefighting Equipment	-	Portable fire extinguishers, Fireman's outfits and equipment, water fog applicators, breathing apparatus, international connections and fire control plans included to meet rule requirements.
Lifesaving Equipment	-	Lifejackets and Survival suits for 325 persons iaw IMO SOLAS regulations.

Machinery Installations

Main Engines	-	4 x resiliently mounted Ruston 16RK280 marine diesel engines, each rated at 7080 kW @ 100% M.C.R. at 29/35 Celsius.
	-	Vertical dry exhaust system discharging outboard at portal top.
Water Jets	-	4 x Lips 120E waterjets configured for steering and reverse.
Transmission	-	4 x Reintjes or ZF gearboxes, approved by engine manufacturer, with reduction ratio suited for optimum jet shaft speed.
Hydraulics	-	Three hydraulic power packs, one forward and two aft, for running of mooring capstans, anchor winch, ride control, steering/reverse, launching crane, stern ramp and rescue boat crane.
Ride Control	-	A 'Maritime Dynamics' active ride control system is fitted to maximise passenger comfort. This system combines, active trim tabs aft and fold-down T-foil located at aft end of centre bow fitted with active fins.
Trim Tabs	-	A hydraulically operated trim tab is hinged at the aft end of each hull.
Monitoring	-	An electronic alarm and monitoring system with dual central VDU displays, keyboards and printer fitted in the wheelhouse. Alarm and monitoring to meet the requirements of the HSC Code, the HSLC Rules and EO requirements.
Communication	-	A 'David Clark' system is fitted to allow communication between any of the following points. Central wheelhouse helm position. Aft vehicle deck, Anchor area, Anterooms, Jet rooms, Engine rooms, T-foil void. All points have call facilities to the wheelhouse via headset stations with volume control. Eight wireless headsets will be supplied.

Shore Ramp	-	Stbd aft slewing stern ramp capable of landing to a wharf starboard alongside or directly aft plus capable of deploying amphibious vehicles to water.

Electrical Installations

Alternators	-	4 x Cummins N14 265kW (nominal) marine brushless self-excited alternators
Distribution	-	415V, 50 Hz 3 phase, 4 wire distribution with neutral earth allowing 240 volt supply using one phase electrical power system available throughout craft via distribution boards adjacent to or within the space they serve.
	-	Local power converters for 120V as required.
Switchboards	-	Main switchboards fitted with a load preferential trip system which automatically sheds non-essential loads whilst still maintaining one alternator as a stand-by set. Each switchboard fitted with a bus coupler breaker to allow the main bus bars to be split in the event of a fault condition.
Essential Distribution	-	Distribution to essential services from independent distribution boards supplied from both switchboards.
Shore Power	-	100-amp shore power with connection points fitted in port and stbd anteroom.
24v DC Systems	-	Separate systems for automation and to power ship's radio communication.
Essential Lighting	-	10% of the main light fittings are powered from the essential-services distribution board. Essential lights and exit signs fitted as required and indicated by red dot. Navigation Lights
	-	Dual power supply (Main and essential services) controlled from the wheelhouse for all navigation lights including NUC and anchor lights.
Cathodic Protection	-	Sea inlets and jet area protected by high capacity anodes. Hull potential monitoring system, alarmed to the wheelhouse fitted.